

# LETTERS *to the Editor*

## Chemicals in the Environment

IN HIS ESSAY that discussed the impact of synthetic chemicals in the environment (CALIFORNIA MEDICINE, November, 1970), Professor Rudd\*\* pointed out that these pollutants might be considered as waste products of our present technology. They do not, however, obey the fundamental ecological law that requires the waste products of a community of organisms to be broken down into primary materials that can be used again and again. Professor Rudd further stated that the "major goals of the socially responsible environmentalist" were to understand the effects upon ecosystems of these pollutants and "to control and to regulate" their input into the global environment. The problems that must be solved and the measures that must be adopted to achieve these goals and to establish a "working control system" are so formidable, however, that Professor Rudd might perhaps be excused for choosing not to comment upon them.

In California the polychlorinated biphenyls were only recently found to be widespread and abundant environmental pollutants. It might therefore be asked how many other persistent pollutants remain undetected by the methods that measure chlorinated hydrocarbons and the heavy metals. Three groups of pollutants were mentioned by Professor Rudd—the organochlorines, the organomercurials, and lead compounds, but as yet we have a very imperfect knowledge of

their distribution in the California environment. We know even less about their effects upon many species now undergoing rapid population changes and we can not predict future rates of accumulation.

The trend in the recent history of science has been toward increased specialization. Yet the answer to the question why the brown pelicans of Anacapa Island are showing abnormal behavior patterns requires expertise in several very different specialties, including ethology, endocrinology, physiology, biochemistry, and perhaps the most important of all, natural history. Determination of the distribution, movements, and effects of the mercury compounds in our coastal waters will require a knowledge of specialties within the broader disciplines of analytical chemistry, microbiology, oceanography and marine biology, in addition to a knowledge of the industrial and agricultural uses of these compounds that constitute the sources of mercury pollution. None of our universities, however, has so far developed a curriculum that will provide the rigorous training that would permit students to use a multi-disciplinary approach in solving the problems of pollution ecology. The training of students is, however, a critical need.

A frequent approach to environmental problems, especially those receiving publicity by the news media, consists of the appropriation of considerable sums of money and the establishment of governmental laboratories and institutes. The procedure is inevitably bureaucratic, slow, and frequently inefficient. Facilities are not open to students and they play no role in the educational process. Instead of communication to the scientific community, interdepartmental memoranda are circulated. Many kinds of research projects,

\*\*Rudd RL: Chemicals in the environment. Calif Med 113:27-32, Nov 1970

particularly the long-term studies are best accomplished by such governmental institutions, yet experimental projects are more efficiently accomplished at the universities. Research funds would thereby support students and contribute to the educational function. The current trend toward increasing governmental research activities at the expense of university sponsored research will clearly be disastrous in the long run.

Professor Rudd pointed out that pollutants cross international boundaries. Control will therefore inevitably become an international problem. The developing countries are prone to consider anti-pollution activities on an international level as a scheme for discouraging their own development, which for economic reasons will inevitably follow the same pathways and techniques that have produced pollution in Japan, North America and Europe. In December of 1970, the Food and Agricultural Organization of the United Nations will hold a meeting in Rome to discuss pollution of the sea and the methods that must be adopted to combat it. The papers produced by this conference will be used in turn to prepare for a larger United Nations conference on pollution to be held in Sweden in 1972. The scientists and diplomats participating in these conferences face therefore the responsibility of preparing the framework that will be used for international efforts to regulate and control the input of persistent pollutants into the global environment. It is a formidable challenge, and if these conferences are successful, a technology may yet emerge that will permit man to live in harmony with his environment.

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## Do Not Smoke in Front of Your Dog

*To the Editor:* The sixth anniversary of the Surgeon General's report on cigarette smoking is being observed the week of January 10th by "National Smoking Education Week." The social climate has changed: It has to be a sunny day in January for anyone now to speak favorably about smoking. In fact smoking is rapidly becoming an antisocial act. The captive nonsmoker has begun

to assert his rights to clean air. It is no longer enough to taste the fruits of nonsmoking. Ecologically and morally it is fitting now to agitate against the befouling of enclosed spaces. The inhalation of another's cigarette smoke has been shown to decrease the body's resistance to respiratory disease. Children especially show greater vulnerability to infection when they are enveloped by persistent smoke.

The Auerbach Experiments which demonstrate the carcinogenic properties of cigarette smoke in dogs have led some wags to suggest "be kind to your dog" campaigns. Many inveterate smokers who cannot stop smoking out of respect for their own bodies might be able to do it for their dog's sake. Bumper strips could proclaim "Your Smoking May Be Harmful to Your Dog." The new California Teacher's Health Guide has now officially changed its stand to: Cigarette Smoke *IS* Dangerous to Health. It is time for further thinking on the whole matter.

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## A New Ethic for Medicine and Society

*To the Editor:* Your editorial of September 1970, "A New Ethic for Medicine and Society," is absolutely incredible. If the matter were not so serious, I would be tempted to think that you meant the editorial to be hideous irony or a twisted joke. A better title would have been "A Non-Ethic for Medicine and Society."

Since you lightly toss about the label, "Judeo-Christian," I certainly feel justified in attaching the label, "Neo-Nazism," to your crude and cruel interpretation of the quality of life and your insensitive machinations for its application. How can you dare to peddle such trash in a country based on the principle that "man has been endowed by the creator with certain inalienable rights, among which are the rights to life, liberty, and the pursuit of happiness?" This is not, and must not become, a country in which the right to life is determined by monstrous egoists who, far from being atheists, want to set themselves up as gods. Moreover, in your biologically oriented so-